



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
Budget Development, Planning and Administration
State Planning Coordination

October 22, 2008

Mr. Jeff Clark
Land Tech Land Planning
118 Atlantic Avenue, Ste. 202
Ocean View, DE 19970

RE: PLUS review – 2008-09-11; Village Brooke North

Dear Mr. Clark:

Thank you for meeting with State agency planners on September 24, 2008 to discuss the proposed plans for the Village Brooke North project to be located east of Route 13, north of County Road 470 and West of County Road 489 within the Town of Laurel.

According to the information received, you are seeking a rezoning of 394.39 acres for a 528,000 sq. ft. commercial center and 2100 homes.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as the Town of Laurel is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town.

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

State Strategies/Project Location

The proposed application seeks the rezoning of Village Brooke North; a 528,000 sq. ft. commercial center and 2100 homes on 394.39 acres located east of Route 13, north of County Road 470 and West of County Road 489 within the Town of Laurel.

Street Design and Transportation

- US Route 13 is classified as a principal arterial highway and the other roads where this project has frontage are classified as local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 50 feet from the inside edge of the travelway on principal arterial highways and 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- DelDOT will require the developer to provide a 15-foot wide permanent easement along the property frontage on the local roads and to provide a 10-foot wide shared use path within that easement.
- US Route 13 between Camden and the Maryland line is subject to DelDOT's Corridor Capacity Preservation Program, which seeks to preserve the capacity of certain principal arterial highways to handle through traffic by managing access along them. The proposed development entrance on Route 13 will require further review in this regard.
- DelDOT appreciates that the Preliminary Master Plan included in the PLUS application may be somewhat conceptual. They offer the following comments on it nonetheless:
 - a) DelDOT recommends that some limited service commercial uses be provided in the neighborhood activity centers so that residents will be able to make convenience purchases without driving to a store.
 - b) Two of the proposed parks and the proposed "town hall" would be surrounded by streets. This arrangement can be visually pleasing but it forces visitors to cross a street to enter or exit and it minimizes the area that people will feel comfortable using for recreation or other purposes. Where possible, DelDOT recommends that the plan be modified to minimize the street frontage of these areas.
 - c) It is recommended that the streets be laid out in a hierarchy based on the volume of traffic they serve, with higher design standards for busier streets. Chapter 5 of DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access provides detailed criteria that could be used in this regard, but one important criterion is that streets

serving more than 3,000 trips per day (about 300 houses) should not have residential driveways on them.

- d) As drawn, the plan would route most of the development through the Town Hall “roundabout.” While this feature, with proper design, would likely be able to handle the development traffic, it seems only prudent to provide alternative access in case this route should be blocked. See comment f) below.
- e) At the northernmost point on the site, there is a dead end street shown serving six lots. As drawn it raises two concerns. First, it should be designed with a cul-de-sac or other turnaround, so that visitors do not have to back out or turn around in someone’s driveway. Second, extension of this street to the property line would create a linkage street (a.k.a. stub street). (See comment f) below.
- a) Chapter 3 of DelDOT’s Standards and Regulations for Subdivision Streets and State Highway Access provides criteria for designing a site plan sufficient to obtain a Letter of No Objection. Two sets of criteria of particular relevance here concern linkage streets (a.k.a stub streets) and connections to the State-maintained road network. DelDOT standards require that linkage streets serving up to 3,000 vehicles per day be spaced an average of 660 feet apart and that linkage streets serving higher volumes be spaced an average of 1,320 feet apart and would require at least one street connection to Dillard’s Road to provide for alternative access and better traffic circulation. A total of four additional street connections, one on Discount Land Road, two on Dillard’s Road, and one on Camp Road (if it is not otherwise tied into the site, see Comment 4) would be reasonable and appropriate.

Natural and Cultural Resources

DNREC reviewers expressed three major concerns about this project:

- The project is dominated by poorly drained soils with severe limitations for development;
- The developer needs to contact the U.S. Army Corps of Engineers and DNREC’s Wetlands and Subaqueous Lands section to determine the extent of federal- and State-regulated wetlands, streams and ditches; and
- The application appears to have significantly understated the percentage of post-construction impervious cover, which could have detrimental effects on water quality, flooding, drainage and other environmental impacts.

This office has received the following comments from State agencies:

Office of State Planning Coordination – Contact: Bryan Hall 739-3090

The proposed application seeks the rezoning of Village Brooke North; a 528,000 sq. ft. commercial center and 2100 homes on 394.39 acres located east of Route 13, north of County Road 470 and West of County Road 489 within the Town of Laurel. Based upon the information provided by the applicant and the Town, this office has no objection to the rezoning of the described parcel; however, encourages the applicant to work closely with the Town to ensure compliance with their certified comprehensive land use plan and with state agencies to address their concerns and recommendation to improve the project as described. If you have any questions, please call this office.

State Historic Preservation Office (SHPO) – Contact: Terrence Burns 739-5685

No comments received

Department of Transportation – Contact: Bill Brockenbrough 760-2109

- 1) A traffic impact study (TIS) will be required for this development and in fact a scoping meeting is scheduled for September 29, 2008. If their plans were accepted for review by the Town after March 31, 2008, Village Brooke East and West do not warrant separate studies, but in any case their traffic will be included in this TIS and DelDOT anticipates making recommendations that could be applied to those developments as well.
- 2) US Route 13 is classified as a principal arterial highway and the other roads where this project has frontage are classified as local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 50 feet from the inside edge of the travelway on principal arterial highways and 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- 3) DelDOT will require the developer to provide a 15-foot wide permanent easement along the property frontage on the local roads and to provide a 10-foot wide shared use path within that easement.
- 4) US Route 13 between Camden and the Maryland line is subject to DelDOT's Corridor Capacity Preservation Program, which seeks to preserve the capacity of certain principal arterial highways to handle through traffic by managing access along them. The proposed development entrance on Route 13 will require further review in this regard. As it is presently proposed, this entrance is too close to the Camp Road intersection to be feasible. Preliminarily, one solution may be to tie Camp Road into the development streets, close the Camp Road intersection with Route 13 and shift the existing crossover north opposite the site entrance, but

further study will be needed. For now, we recommend that the developer contact our program manager, Mr. Charles Altevogt, for more information on the Program. Mr. Altevogt may be reached at (302) 760-2124.

5) DelDOT appreciates that the Preliminary Master Plan included in the PLUS application may be somewhat conceptual. They offer the following comments on it nonetheless:

- f) The proposed separation of the residential and commercial areas will discourage residents living relatively close to the shopping center from walking to it and will virtually guarantee that those near the north and east edges of the development will drive there. DelDOT recommends that some limited service commercial uses be provided in the neighborhood activity centers so that residents will be able to make convenience purchases without driving to a store.
- g) Two of the proposed parks and the proposed “town hall” would be surrounded by streets. This arrangement can be visually pleasing but it forces visitors to cross a street to enter or exit and it minimizes the area that people will feel comfortable using for recreation or other purposes. Where possible, DelDOT recommends that the plan be modified to minimize the street frontage of these areas.
- h) The plan shows virtually no hierarchy of streets; several blocks of narrow, two-lane street separate the site accesses from the boulevards and the boulevards from each other. This makes it difficult for visitors, and to some extent residents, to find their way within the development and places relatively high volumes of traffic on streets that are too narrow and have too many access points to safely accommodate them. It is recommended that the streets be laid out in a hierarchy based on the volume of traffic they serve, with higher design standards for busier streets. Chapter 5 of DelDOT’s Standards and Regulations for Subdivision Streets and State Highway Access provides detailed criteria that could be used in this regard, but one important criterion is that streets serving more than 3,000 trips per day (about 300 houses) should not have residential driveways on them.
- i) As drawn, the plan would route most of the development through the Town Hall “roundabout.” While this feature, with proper design, would likely be able to handle the development traffic, it seems only prudent to provide alternative access in case this route should be blocked. See comment f) below.
- j) At the northernmost point on the site, there is a dead end street shown serving six lots. As drawn it raises two concerns. First, it should be designed with a cul-de-sac or other turnaround, so that visitors do not have

to back out or turn around in someone's driveway. Second, extension of this street to the property line would create a linkage street (a.k.a. stub street). (See comment f) below.

- b) Chapter 3 of DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access provides criteria for designing a site plan sufficient to obtain a Letter of No Objection. Two sets of criteria of particular relevance here concern linkage streets (a.k.a. stub streets) and connections to the State-maintained road network. DelDOT standards require that linkage streets serving up to 3,000 vehicles per day be spaced an average of 660 feet apart and that linkage streets serving higher volumes be spaced an average of 1,320 feet apart and would require at least one street connection to Dillards Road to provide for alternative access and better traffic circulation. A total of four additional street connections, one on Discount Land Road, two on Dillards Road, and one on Camp Road (if it is not otherwise tied into the site, see Comment 4) would be reasonable and appropriate.
- 6) DelDOT recommends that the developer's site engineer contact our Subdivision Manager for western Sussex County, Mr. Derek Sapp, for more detailed comments. Mr. Sapp may be reached at (302) 760-4803.

The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071

Overall Comments

Department reviewers expressed three major concerns about this project:

- The project is dominated by poorly drained soils with severe limitations for development;
- The developer needs to contact the U.S. Army Corps of Engineers and DNREC's Wetlands and Subaqueous Lands section to determine the extent of federal- and State-regulated wetlands, streams and ditches; and
- The application appears to have significantly understated the percentage of post-construction impervious cover, which could have detrimental effects on water quality, flooding, drainage and other environmental impacts.

Soils

According to the Sussex County soil survey update, Ingleside (IeA), Pepperbox-Rosedale complex (PsA), Glassboro (GoA), Hurlock (HvA), Corsica (CoA), and Mullica (MuA) were mapped in the immediate vicinity of the proposed construction (See figure 1).

Ingleside is a well-drained upland soil that, generally, has few limitations for development. Pepperbox-Rosedale is moderately well to well-drained upland soil that has

moderate to few limitations for development. Glassboro is a somewhat poorly-drained soil transitional soil that is likely to have both upland and wetland soil components. Hurlock, Corsica, and Mullica are poorly to very poorly-drained wetland associated (hydric) soils that have severe limitations for development. Approximately 70 percent of the mapped soils were mapped as Hurlock, Corsica, and Mullica. These soils, as mentioned previously, have severe limitations for development and should be avoided.

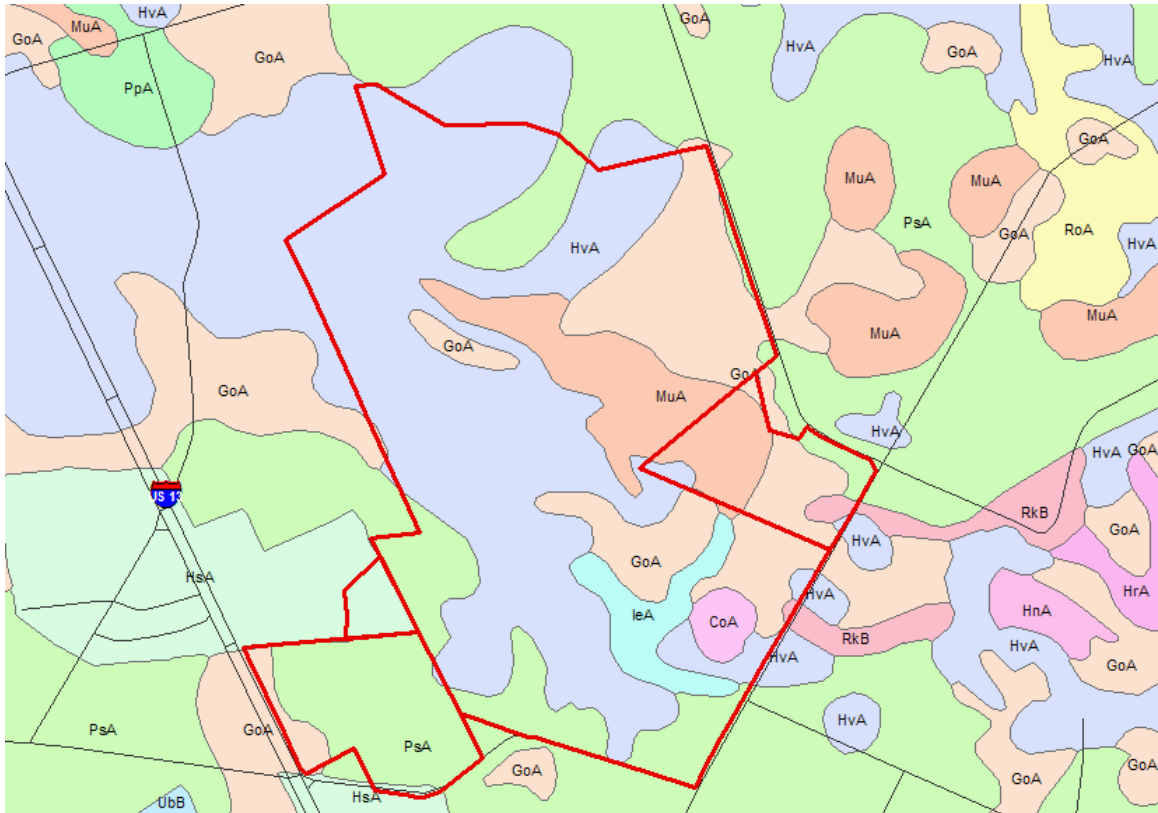


Figure 1: Soil survey mapping in the immediate vicinity of Village Brooke North

Wetlands

Based on Statewide Wetlands Mapping Project (SWMP) mapping, palustrine forested wetlands were mapped along much of the northern boundary and partially along the northeastern boundary of the proposed project (See figure 2). Please Note: Although the mapped hydric soils do not precisely match the occurrence of the mapped wetlands, this in no way negates the fact that wetland conditions still probably exist where these soils occur.

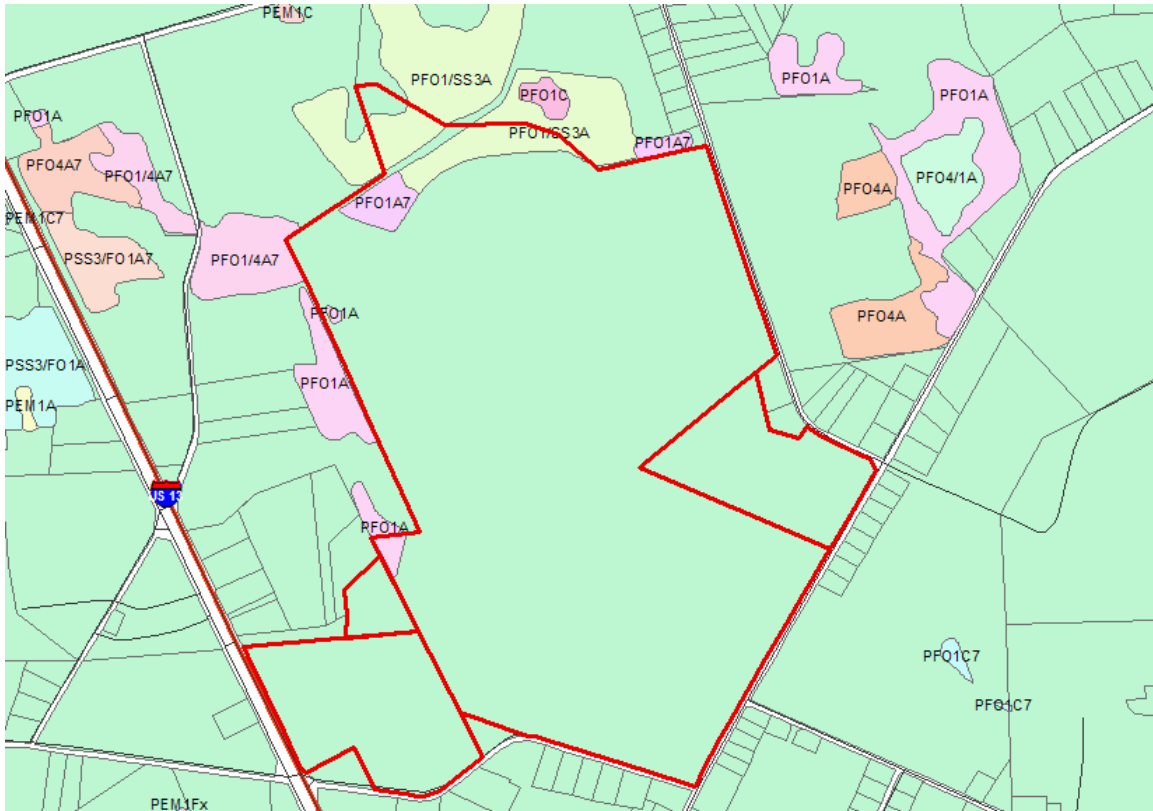


Figure 2: Statewide Wetland Mapping Project (SWMP) mapping in the immediate vicinity of Village Brooke North

There are some blue line streams (part of Gum Branch and tributaries) on the property that will be impacted by the proposed development. These blue line feature(s) on the property are subject to the requirements of the State Subaqueous Lands Regulations and cannot be filled in without a permit from the Wetlands and Subaqueous Lands office. Options for the project include redesigning around the blue line features. The developer may be able to mitigate; however, to do so, they may have to reduce the size of the project.

DNREC could not find any record of a jurisdictional determination on the property. They may want to request one, as most developers do, to determine if all or just a portion of the blue line features are jurisdictional under State regulations. Additionally, the

SWMP maps show wetlands regulated by the Corps of Engineers on the property where there is proposed development. They need to contact the Corps of Engineers to get a jurisdictional determination for the property.

The applicant is responsible for determining whether any State-regulated wetlands (regulated pursuant to 7 Del.C. Chapter 66 and the Wetlands Regulations) are present on the property. This determination can only be made by contacting the Division of Water Resources' Wetlands and Subaqueous Lands Section at 302/739-9943 and consulting the State's official wetland regulatory maps, which depict the extent of State jurisdiction. The area regulated by State law may be very different from the area under federal authority. No activity may take place in State-regulated wetlands without a permit from DNREC's Wetlands Section.

In addition, most perennial streams and ditches and many intermittent streams and ditches are regulated pursuant to the Subaqueous Lands Act (7 Del.C. Chapter 72) and the Regulations Governing the Use of Subaqueous Lands. Ponds which are connected to other waters are also regulated, while isolated ponds are not. Any work in regulated streams, ditches or ponds requires a permit from the Wetlands and Subaqueous Lands Section. An on-site jurisdictional determination is recommended in order to determine whether any regulated watercourses exist on the property. Please contact the Wetlands and Subaqueous Lands Section at 302/739-9943 to schedule an on-site visit. Such appointments can usually be scheduled within 2 to 3 weeks.

The applicant should also be reminded that they must avoid construction/filling activities in those areas containing wetlands or wetland associated hydric soils as they are subject to regulatory jurisdiction under Federal 404 provisions of the Clean Water Act. A site-specific field wetlands delineation using the methodology described in the 1987 United States Army Corps of Engineers (USACE, or "the Corps") manual is the only acceptable basis for making a jurisdictional wetland determination for nontidal wetlands in Delaware. The applicant is forewarned that the Corps views the use of the National Wetlands Inventory (NWI) mapping or the Statewide Wetlands Mapping Project (SWMP) mapping as an unacceptable substitute for making such delineations. To ensure compliance with said Corps regulatory requirements, it is strongly recommended that a field wetlands delineation using the above-referenced methodology be performed on this parcel before commencing any construction activities. It is further recommended that the Corps be given the opportunity to officially approve the completed delineation. In circumstances where the applicant or applicant's consultant delineates what they believe are nonjurisdictional isolated (SWANCC) wetlands, the Corps must be contacted to evaluate and assess the jurisdictional validity of such a delineation. The final jurisdictional authority for making isolated wetlands determinations rests with the Corps; they can be reached by phone at 736-9763.

Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this

research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands.

As mentioned previously, a significant portion (an estimated 70%) of this parcel contains poorly to very poorly-drained hydric Hurlock, Corsica, and Mullica soils. Hydric soils typically have a seasonal high water table at or near the soil surface (within one-foot of soil surface or less). Building in such soils is likely to leave prospective residents of this and adjoining properties susceptible to future flooding problems from groundwater-driven surface water ponding, especially during extended periods of high-intensity rainfall events such as tropical storms/hurricanes or “nor’easters.” This is in addition to increased flooding probabilities from surface water runoff emanating from future created forms of structural imperviousness (e.g., rooftops, roads, sidewalks, and stormwater management structures).

Based on the Chapter 99, Section 16A of the Sussex County Code (paraphrased), lands compromised by improper drainage or flooding potential pose significant threats to the safety and general welfare of future residents and, therefore, shall not be developed. Soils mapped as Hurlock, Corsica, and Mullica fit the criterion for improper drainage or high flooding potential, and should be avoided. The Watershed Assessment Section believes permitting development on such soils would be inconsistent with above-mentioned regulatory guidelines in the Sussex County Code.

Impervious Cover

The applicant estimates this project’s post-construction surface imperviousness to reach only 47 percent. However, given the scope and density of this project (i.e., as viewed from the conceptual project layout) this estimate appears to be a significant underestimate. When calculating surface imperviousness, it is important to include all forms of constructed surface imperviousness, such as all paved surfaces including rooftops, sidewalks, driveways, and roads; open-water stormwater management structures and/or ponds; and community wastewater systems. This will ensure a realistic assessment of this project’s likely post-construction environmental impacts. Using the TR-55 method and applying it to the prevailing residential lot size of less than 1/8 acre, DNREC calculates impervious cover for the project to be at least 65 percent – probably higher considering the commercial component and associated parking.

Surface imperviousness should be recalculated to include all of the above-mentioned forms of surface imperviousness in the finalized calculation for surface imperviousness. Failure to do so will significantly understate this project’s true environmental impacts. Therefore, the calculation for surface imperviousness should be corrected and/or recalculated to reflect all the above-mentioned concerns

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of this project's most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness. It is strongly recommended that the commercial portion of the project substitute pervious paving materials in lieu of conventional impervious paving materials.

ERES Waters

This project is located adjacent to receiving waters of the Nanticoke watershed, and designated as having waters of Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of pollutants through implementation of Best Management Practices (BMPs). Moreover, provisions defined in subsection 5.6.3.5 of same section, specially authorize the Department to mandate BMPs to meet standards for controlling the addition of pollutants and reducing them to the greatest degree achievable and, where practicable, implementation of a standard requiring no discharge of pollutants.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Nanticoke watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. In the greater Nanticoke watershed, "target-rate-nutrient reductions" of 30 and 50 percent will be required for nitrogen and phosphorus, respectively. Additionally, "target-rate-reductions" of 2 percent will be required for bacteria.

TMDL Compliance through the PCS

As indicated above, TMDLs for nitrogen and phosphorus have been proposed for the Nanticoke watershed. The TMDL calls for a 30 and 50 percent reduction in nitrogen and

phosphorus from baseline conditions. The TMDL also calls for a 2 percent reduction in bacteria. A Pollution Control Strategy (PCS) will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through the implementation of BMPs such as wider vegetated buffers along watercourses/wetlands, increasing the amount of passive, wooded open space, use of pervious paving materials to reduce surface imperviousness, siting a performance-based wastewater (or, better yet, connection to a central sewer), and deployment of green-technology stormwater management treatment technologies. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Water Supply

The information provided indicates that the Town of Laurel will provide water to the proposed projects through a public water system. Our files reflect that the Town of Laurel does not currently hold a Certificate of Public Convenience and Necessity (CPCN) to provide public water in these areas. According to §203C, Subchapter II, Chapter 1, Title 26, Delaware Code, the municipality is required to give notice to the Public Service Commission when the annexation is complete. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-736-7547. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

Sediment and Erosion Control/Stormwater Management

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.
- Because of the parcel's location in an impaired watershed and the amount of impervious surface, green technology BMPs and low impact development practices should be considered a priority to reduce stormwater flow and to meet water quality goals. The Sediment and Stormwater Management Program ensures that sediment and erosion control plans and stormwater plans comply with local land use ordinances and policies, including the siting of stormwater management facilities. However, we do not support placement in resource protection areas or the removal of trees for the sole purpose of placement of a stormwater management facility/practice.
- Include Brooks Cahall, of the Drainage Program, in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch. Show the location and width of tax ditch rights-of-way on the sediment and stormwater plans.

Drainage

1. This project is located within the Mt. Zion Tax Ditch. The placement of permanent obstructions within tax ditch rights-of-way is prohibited. Any change to the location of the tax ditch, or the existing tax ditch rights-of-way, will require a change to the Mt. Zion Tax Ditch court order. Please contact Brooks Cahall of the Drainage Program to resolve the issues with the tax ditch. It is suggested to include Brooks Cahall in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch.
2. The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water. The Drainage Program requests that the engineer check existing downstream ditches

- and pipes for function and blockages prior to the construction. Notify downstream landowners of the change in volume of water released on them.
3. Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction. Future property owners may not be aware of a drainage easement on their property if the easement is only on the record plan. However, by recording the drainage easement on the deed, the second owner, and any subsequent owner of the property, will be fully aware of the drainage easement on their property.
 4. Excessive tree removal contributes to drainage problems and requires additional stormwater management measures. Where practical, plant native trees and shrubs to compensate for the loss of nutrient uptake and stormwater absorption the removed trees provided.

Forest Preservation

Although the amount of forest loss being proposed is small, this forested area is part of a larger forest block and contains wetlands (according to state wetland maps). Larger, continuous areas of forest are necessary for many species of wildlife and forested wetlands can support an array of plants and animals.

Cumulative forest loss throughout the State is of utmost concern to the Division of Fish and Wildlife which is responsible for conserving and managing the State's wildlife (see www.fw.delaware.gov and the Delaware Code, Title 7). Because of an overall lack of forest protection, we have to rely on applicants and/or the entity that approves the project (i.e. counties and municipalities) to consider implementing measures that will aide in forest loss reduction.

Recommendations:

1. This is a very large development and DNREC recommends that the forest on this property be left intact as open space. This would require omitting some lots and infrastructure.
2. To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, it is recommended that clearing not occur April 1st to July 31st. This clearing recommendation would only protect those species during one breeding season; once trees are cleared the result is an overall loss of habitat.

Potential Hunting Issue

Because the project parcel is part of a larger forest block, legal hunting activities may take place on adjacent properties. Hunting within 100 yards of a dwelling is prohibited by State law (Title 7, Chapter 7, Section 723) and the applicant should contact adjacent landowners to determine if this is going to be an issue affecting his or her property rights.

In effect, the adjacent landowner will be losing 100 yards of their property for hunting if there is not an adequate buffer between lot lines and the adjacent property line.

There is also noise associated with hunting, such as the discharge of firearms or dogs barking when pursuing game.

Nuisance Waterfowl

Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species.

The Division of Fish and Wildlife does not provide goose control services, and if problems arise, the property owner/land manager will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Recommendation: DNREC recommends native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 feet in width) around the ponds. When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond. The vegetation also blocks the ability to easily move between land and water.

At this time, DNREC does not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the property owner/land manager.

Site Investigation and Restoration

One (1) Site Investigation & Restoration Branch (SIRB) sites were found within a half mile radius of the proposed site: Whites Salvage (DE-0329), located adjacent to the southern portion of the proposed project. Whites Salvage received a No Further Action designation in 2007.

Based on the previous agricultural use of the proposed project site, which may have involved the use of pesticides and herbicides, and the location of the SIRB site, SIRB recommends that a Phase I Environmental Site Assessment be performed prior to development. In addition, should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or

soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.

Under/Aboveground Storage Tanks

There is one (1) inactive LUST site located within a quarter mile from the proposed project:

Name: Sussex Auto Center

Facility ID: 5-000067

Project: S9702022

Should any underground storage tanks or petroleum contaminated soil be discovered by any person during construction, the DNREC-TMB at (302) 395-2500 and the DNREC Emergency Response Hotline at (800) 662-8802 must be notified within 24 hours.

Should any contamination be encountered, PVC pipe materials will have to be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

Also, please note that if any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMB. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMB.

Air Quality

Housing developments may unnecessarily emit, or cause to be emitted, significant amounts of air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
- The emission of greenhouse gases which are associated with climate change, and
- The emission of air toxics.

Air emissions generated from housing developments include emissions from:

- Area sources like painting, lawn and garden equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity needed to support the homes in your development, and
- Car and truck activity associated with the homes in your new development.

These three air emissions components (i.e., area, electric power generation, and mobile sources) are quantified below, based on a per household/residential unit emission factor that was developed using 2002 Delaware data. These emissions in the table represent the actual impact the Village Brooke North development may have.

Emissions Attributable to Village Brooke North Subdivision (Tons per Year)

	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Direct Residential	65.0	7.2	5.9	7.7	263.5
Electrical Power Generation	ND*	25.8	89.6	ND*	13,217.7
Mobile	161.2	133.4	98.4	8.8	13,481.2
Total	226.2	166.4	193.9	16.5	26,962.4

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

Recommendations:

The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

Regulation 6 - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> • Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. • Using covers on trucks that transport material to and from site to prevent visible emissions.
Regulation 1113 – Open Burning	<ul style="list-style-type: none"> • Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year. • Prohibiting the burning of land clearing debris. • Prohibiting the burning of trash or building materials/debris.
Regulation 1145 – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> • Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

- **Constructing only energy efficient homes.** Energy Star qualified homes are up to 30% more energy efficient than typical homes. These savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
- **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions.
- **Funding a lawnmower exchange program.** New lawn and garden equipment emits significantly less than equipment as little as 7 years old, and may significantly reduce emissions from this new development. The builder could fund such a program for the new occupants.

Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:

- **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development on air quality. The applicant should submit a plan to the DNREC Air Quality Management Section which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Village Brooke North development. Air Quality Management Section points of contact are Phil Wheeler and Deanna Morozowich, and they may be reached at (302) 739-9402.

State Fire Marshal's Office – Contact: Duane Fox 856-5298

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.
- Where a water distribution system is proposed for Mixed Use sites, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. **Fire Protection Features:**

- All structures over 10,000 sqft aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

c. **Accessibility**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road from the main thoroughfare must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- d. **Gas Piping and System Information:**
 - Provide type of fuel proposed, and show locations of bulk containers on plan.
- e. **Required Notes:**
 - Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
 - Proposed Use
 - Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
 - Square footage of each structure (Total of all Floors)
 - National Fire Protection Association (NFPA) Construction Type
 - Maximum Height of Buildings (including number of stories)
 - Note indicating if building is to be sprinklered
 - Name of Water Provider
 - Letter from Water Provider approving the system layout
 - Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
 - Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Scott Blaier 739-4811

The Delaware Department of Agriculture has no objections to the proposed development. The project is located within the Town of Laurel, and is consistent with the *Strategies for State Policies and Spending*.

Right Tree for the Right Place

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

Do Not Plant List

Due to the high risk of mortality from insects and disease, the Delaware Forest Service does not recommend planting any of the following species:

Callery Pear
Leyland Cypress
Red Oak (except for Willow Oak)
Ash Trees

Please contact the Delaware Forest Service for more information at (302) 698-4500.

Native Landscapes

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Delaware Division of Public Health- Health Promotion Bureau- contact Michelle Eichinger (302) 744-1011

Ensuring that new residential and commercial development incorporates pedestrian- and bicycle-friendly features allows people to travel by foot or by bicycle and promotes physical activity as part of daily routines. Regular physical activity offers a number of health benefits, including maintenance of weight and prevention of heart disease, type 2 diabetes and other chronic diseases.¹ Research shows that incorporating physical activity into daily routines has the potential to be a more effective and sustainable public health strategy than structured exercise programs.² This is particularly important considering about 65% of adult Delawareans are either overweight or obese.³ This current obesity crisis is also affecting children. Approximately 37% of Delaware's children are overweight or obese⁴, which places them at risk for a range of health consequences that include abnormal cholesterol, high blood pressure, type 2 diabetes, asthma, depression and anxiety.¹

In Delaware, as in other states across the nation, certain patterns of land use can act as a barrier to physical activity and healthy eating for children and adults alike. Examples of

such barriers include neighborhoods constructed without sidewalks or parks and shopping centers with full-service grocery stores situated too far from residential areas to allow for walking or biking between them.

This proposed development is in a Level 2 area. Developing in such an area is consistent with the *Strategies for State Policies and Spending*. DPH is committed to the *Strategies* and therefore, does support development in the proposed area.

DPH supports new development in and around existing towns and municipalities where compact and mixed land use patterns facilitate physical activity. As a way to promote physical activity and access to healthy foods, we recommend that the following amenities be included in the Village Brook North plan:

Amenities to encourage active transportation

- Ensure that there are sidewalks, crosswalks and walking/bicycling paths connecting the residential developments to the commercial development. Further, ensure there is a way to connect paths in the developments and existing paths.
- Designate bike paths to supplement the sidewalks already proposed in the plan so that residents can travel by foot or by bicycle. In addition, install bike racks in convenient locations within commercial development and the neighborhood activity centers.

Amenities to encourage active recreation

- Designate open space for active recreation for the residents in this community. Consider including a picnic area, as well as, tennis courts, basketball courts, shuffleboard, or horseshoe areas.
- Even though this is an active adult community, the incorporation of playgrounds would provide active recreation opportunities for children who visit. If feasible, consider including a walking path around the playground areas.

Increase opportunities for healthy eating

- Designate an area for a seasonal farm stand or mini farmer's market that will promote the sale of fruits and vegetables. Not only will this benefit commercial property users but the neighboring residential developments as well.
- Consider including a community garden in areas close to the neighborhood activity centers. Community gardens not only provide opportunities for community engagement, but they also provide access to fresh produce and, as well as an opportunity for physical activity.

Delaware State Housing Authority – Contact Vicki Powers 739-4263

This proposal is for a rezoning of 395 acres and a site plan review of 2,100 residential units and 528,000 sq. ft. of commercial property located east of RT 13, north of CR 470, west of CR 489 within the Town limits of Laurel. According to the *State Strategies Map*, the proposal is located in an Investment Level 1 area. DSHA supports this proposal because residents will have proximity to services, markets, and employment

opportunities. Furthermore, the proposal targets this development as an active adult community. According to the most recent real estate data collected by DSHA, the median home price in Sussex County is \$260,000. However, households earning respectively 100% of Sussex County's median income only qualify for mortgages of \$164,791, thus creating an affordability gap of \$95,209. Furthermore, the elderly are the fastest growing segment of our population, specifically in Sussex County. We encourage both the Town of Laurel and the developer to coordinate setting aside some of the units to be affordable to the elderly low- and moderate-income households. The provision of units within reach of households earning at least 100% of Sussex County's median income will ensure housing that is affordable to the elderly population.

Department of Education – Contact: John Marinucci 735-4055

No comments received.

Sussex County – Contact: Richard Kautz 855-7878

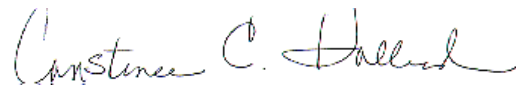
The town is encouraged to avoid the creation of new enclaves when annexing, to eliminate existing enclaves during its negotiation of the annexation agreement, and to notify the Sussex County Planning Department when the annexation becomes effective. Also, the Town is encouraged to require adequate buffers to protect the adjacent agricultural activities and to require a visual buffer along the rear frontage of the commercial buildings backing up to Camp Road.

No comment about the project. The site is to be entirely within the town limits and does not directly impact County services or properties outside the town limits.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in cursive script, reading "Constance C. Holland".

Constance C. Holland, AICP
Director

CC: Town of Laurel